



Linda S. Adams  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

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Arnold Schwarzenegger  
Governor

April 30, 2007

Mr. Thomas Johnson, Jr.  
Deputy Federal Project Director  
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U. S. Department of Energy  
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### **CLOSURE OF HAZARDOUS WASTE MANAGEMENT UNITS IN THE RADIOLOGICAL MATERIALS HANDLING FACILITY, BOEING, SANTA SUSANA FIELD LABORATORY, SIMI VALLEY, CALIFORNIA**

Dear Mr. Johnson:

The Department of Toxic Substances Control (DTSC) has received and reviewed your letter dated April 6, 2007. Your letter documented three issues discussed in the March 19, 2007 meeting held among representatives from DTSC, Boeing, and the Department of Energy (DOE). The issues are related to the potential integration of Resource Conservation and Recovery Act (RCRA) closure of interim status document (ISD) hazardous waste units in the Radiological Materials Handling Facility (RMHF) with the Comprehensive Environmental Response, Compensation Liability Act (CERCLA) Non-time Critical Removal Action for the radioactive materials handled at the RMHF.

Per your request, we are writing this letter to identify where your representations are substantially different than our recollections of the meeting. We are also writing with follow up comments to the questions that we raised in the meeting. We request that DOE respond to these comments as a part of its response to public comments on the Draft Engineering Evaluation/Cost Analysis (EE/CA) dated January 26, 2007, for the Non-time Critical Removal Action.

DTSC agrees that the points of discussion included identification of the project Applicable or Relevant and Appropriate Requirements (ARARs); determination of residual cumulative risk following site clean-up in a manner consistent with CERCLA and EPA guidelines; and inclusion of chemical constituents of concern during the

verification soil sampling stage of the project. Our comments to your summary of these points of discussion are as follows:

## **1. ARARs**

DOE proposes to: a) remove waste and equipment and tear down the RMHF buildings that were part of the ISD facility and transport the wastes to an authorized disposal facility; and b) remove radiologically contaminated soil to levels that would allow residual soil to be released for unrestricted use, then allow verification sampling for chemical constituents and, if necessary, further remediation of hazardous waste constituents to proceed without the need for radiological controls. For the record, we note that the focus of the ARAR discussion was on the requirements of the California Hazardous Waste Control Law (HWCL)(chapter 6.5 of division 20 of the California Health and Safety Code and division 4.5 of title 22 of the California Code of Regulations) that would be met through ARARs for those components of this work that would be covered by the EE/CA. DOE also agreed that a closure plan for the remaining HWCL/RCRA closure requirements will be submitted to DTSC for formal approval once the EE/CA work is close to completion. Based on our review of the revised EE/CA, we are submitting the following comment to the EE/CA.

### **Comment**

Table B-1 identifies article 7 of chapter 15 of division 4.5 of title 22 of the California Code of Regulations as an ARAR for RCRA closure and postclosure. But Table B-1 incorrectly identifies 40 CFR parts 260-265 as the ARARs that apply to the classification and management of hazardous wastes during the decommissioning and decontamination of the RMHF. U.S. EPA has authorized DTSC to implement the RCRA program in California. Consequently, the California Hazardous Waste Control Law (Health and Saf. Code, div. 20, chap. 6.5 and division 4.5 of title 22 of the Ca. Code Regs., tit. 22, div. 4.5) contains the applicable requirements and should be cited as a ARAR in lieu of 40 CFR parts 260-265.

## **2. Cumulative Risk**

Your letter creates the impression that the meeting resolved DTSC's uncertainty about how DOE intends to deal with the cumulative risk of residual radioactive materials and hazardous constituents at the RMHF site. Unfortunately, neither the meeting nor the subsequent revision to the EE/CA clarified this issue for DTSC. Specifically, as you may recall, our discussion evolved to encompass the sampling and cumulative risk determination of any residual radioactive materials, chemicals authorized for management at the RMHF pursuant to DTSC's grant of interim status and other chemicals subject to DTSC's corrective action

requirements. We asked that DOE clarify its intent to consider verification sampling and cumulative risk analysis for all three of these materials as a part of its project. Neither your letter nor the EE/CA specifically address this issue. Consequently, we are submitting the following comment to the EE/CA.

### **Comment**

DOE's letter to DTSC dated April 6, 2007 states that DOE intends to sample and determine residual risk in a manner consistent with CERCLA. EPA's guidance document for radiation risk assessments at CERCLA sites states that excess cancer risk from both radionuclides and chemical carcinogens should be summed to provide an estimate of the combined risk presented by all carcinogenic contaminants at the site. (See EPA December 17, 1999 memorandum, Subject: Distribution of OSWER Radiation Risk Assessment Q & A's Final Guidance, Q28, page 11, citing OSWER Directive 9200.4-18). The EE/CA appears to indicate that DOE is not proceeding with the D&D in a manner consistent with this EPA guidance. Specifically, section 2.1 of the EE/CA indicates that DOE is limiting the cumulative cancer risk assessment to radionuclides only. Additionally, section 2.2 does not reference this EPA guidance or expressly state that DOE would consider excess cancer risk from both radionuclides and chemical carcinogens in its risk management decision making to determine the need for further response action relative to any soil activities with cumulative radiological risks that fall between  $10^{-6}$  and  $10^{-4}$ . EPA's guidance document for coordination between RCRA corrective action and closure and CERCLA site activities suggests that DOE should perform such a cumulative effects analysis as a part of its CERCLA-based decommissioning project and not as a part of its RCRA Corrective Action or Closure cleanup program. (See September 24, 1996 memorandum, Subject: Coordination Between RCRA Corrective Action and Closure and CERCLA Site Activities, page 2, citing footnote 1.). DTSC requests that DOE clarify in the EE/CA its intent to perform its risk management decision making in conformance with this EPA guidance.

### **3. Verification Soil Sampling**

As indicated above, our discussion evolved to encompass the sampling of chemicals authorized for management at the RMHF pursuant to DTSC's grant of interim status and other chemicals subject to DTSC's corrective action requirements. Your letter does not make clear if DOE intends to include the corrective action chemicals in the chemical verification sampling or limit that sampling to the closure chemicals. Including corrective action chemicals is necessary for DOE to perform its cumulative risk management decision making in conformance with the aforementioned EPA guidance. Consequently, DTSC

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strongly recommends that DOE include both the corrective action chemicals and the closure chemicals in the chemical verification sampling. Page 6 of Draft EE/CA, last sentence stated "After the RMHF structures and radiologically impacted soils have been removed, chemical contamination in underlying soils in the RMHF footprint will be addressed as part of the RCRA permit closure". Please clearly describe that a closure plan for hazardous waste management units will be submitted to DTSC for approval.

#### **4. Off Site Disposal**

In addition to the three points of discussion addressed in your letter, we also discussed off-site disposal locations. In this regard, DOE noted that all waste would be shipped to the Kettleman Hills Class I landfill (if the waste meets the landfill's permit requirements), or to two out-of-state disposal facilities that are authorized to take radioactive waste or mixed waste, as appropriate. Please include Kettleman Hills in page 12 of the Draft EE/CA document.

In addition, the EE/CA should have detailed descriptions about how DOE and Boeing will characterize D&D wastes for hazardous constituents for proper disposal.

DTSC in general supports the idea of minimizing overlapping regulatory burden. DTSC is willing to consider participation in any process which meets both regulatory and technical requirements, and is protective of the public and the environment. If you have any questions, please contact Wei-Wei Chui of my staff at (510) 540-3975.

Sincerely,



Mohinder S. Sandhu, P.E.

Branch Chief

Standardized Permitting and Corrective Action Branch

cc: see list next page

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